FISHERIES
RESOURCE
CONSERVATION
COUNCIL

GEORGES BANK - 1999

1999 CONSERVATION REQUIREMENTS FOR GEORGES BANK GROUNDFISH STOCKS

REPORT TO THE MINISTER OF FISHERIES AND OCEANS

FRCC.99.R.2
May 1999

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LETTER TO THE MINISTER

May 19, 1999

The Honourable David Anderson, P.C., M. P.
Minister of Fisheries and Oceans
200 Kent St.
Ottawa, Ontario
K1A 0E6

Dear Minister:

The mandate of the Fisheries Resource Conservation Council (FRCC) requires that it advise you on conservation requirements for Atlantic fish stocks. In keeping with this mandate we have conducted consultations with science and industry representatives on the conservation requirements for Georges Bank groundfish stocks.

The FRCC has now concluded consultations for Georges Bank haddock, cod and yellowtail flounder. Our consultations, held in Yarmouth, Nova Scotia on May 11, were characterized by a strong conservation ethic on the part of all stakeholders. Those who fish on Georges Bank have seen the signs of recovery in the yellowtail flounder and haddock stocks. Similar recovery is not apparent in the cod stock. Stakeholders are committed to seeing these stocks rebuild. All who attended our consultations believed that a rebuilding strategy for these stocks should be aggressively pursued and that quotas should continue to be set below the $F_{0.1}$ level to allow rebuilding to occur.

As we did in the past year, the Council wants to take this opportunity to thank the Department for the fine presentation given by scientists from the St. Andrews Biological Station. The high level of debate and discussion at the Yarmouth consultation indicated how healthy the continued rapport between science and industry is in this area. We believe this is also indicative of the quality of the advice and the presentation, and ultimately, how far we have come in working together to achieve our conservation goals, particularly in respect of the haddock and yellowtail flounder stocks.

In the past, the Council had not recommended total removals for these three transboundary stocks, preferring instead to recommend levels for Canadian quotas only. This was because the US management system was based primarily on effort controls and not TACs or quotas. In determining Canadian quota recommendations previously, the Council took into consideration the estimated catch by US vessels and apportioned the remainder of what was believed to be a sensible total removals level as the recommended Canadian quota.

The US has recently been increasing its catches in these stocks and has now changed its management system and is determining a "total target TAC" as well as what portion should be the "US target TAC". The Council feels that, in light of these increased catches, it is important to have a complete and transparent view of catches and total resource status. The Council, therefore, believes that in order to assure conservation of these stocks, we should present advice on the total stock basis as it does for all other groundfish stocks. Unfortunately, Canada and the US have yet to determine what share of the total removals level should be apportioned to each country. This is of significant concern to the Council because there is considerable risk of overexploitation of these resources.

If the two countries cannot, in the near future, agree on sharing arrangements for these stocks then the sacrifices the Canadian industry has made over the past few years in rebuilding will be lost and the stocks will be subject to overfishing. The Council has recommended that these discussions take place many times already with no apparent result. **Therefore, the Council again strongly recommends that these discussions be undertaken with the US as soon as possible to ensure that consistent management and conservation measures are put in on both sides of the boundary line.**

The Council has also identified rebuilding thresholds for these stocks, as we believe there is a relationship between the size of the spawning stock biomass and good recruitment. For cod we have set this threshold for the spawning stock biomass at 25,000t and for haddock at 40,000t. We are optimistic that with an aggressive rebuilding strategy, a strong conservation ethic on the part of the fishing industry in this area, and some help from Mother Nature, we can achieve these thresholds in the near future. For yellowtail flounder it is unclear what the level should be as these levels are dependent on the models being used. Scientists have recently changed the model for this stock and hopefully we will be in a better position to determine a threshold level in the near

future. The fecundity of cod and haddock improves with age, i.e. the older the fish, the better the chances of recruitment, and therefore efforts must be made to improve the age structure of these stocks, as well as the yellowtail flounder.

It should be noted that for the Georges Bank cod stock, we are seeing signs of danger particularly with respect to the lack of good incoming recruitment. Although the total mature biomass has grown by more than 20% from 1998 to 1999, most of the growth came from the existing mature biomass, and not from recruitment. Continued poor recruitment could eventually result in a depletion of the spawning stock biomass to dangerously low levels and certainly to the level of commercial extinction. This stock is fished in a mixed fishery with haddock, pollock and, to a lesser extent, yellowtail. In the 1998 fishery, haddock quota was left uncaught due to low cod quota levels. With an improved resource outlook for haddock and yellowtail flounder, this situation will only become more acute. While the recommendation for the 1999 cod total removals is below F0.1 and there is growth in the resource, we are concerned that this is a misleading portrayal of healthy resource status. We wish to alert you and the industry of our concern. We believe that the 1999 fishery must be managed with the utmost care to ensure that good conservation practices are in place. The Council intends to carefully review this situation again next year with a view to thoroughly evaluating stock status and determining what the long term conservation strategy for 5Zjm cod should be. Key in our assessment will be how much progress has been made with the US on cooperative management and conservation measures.

We note that the 1998 year-class is the lowest ever observed. For these reasons, the Council has decided to be even more conservative than it has in previous year's quota recommendations. Given the low recommended total removals for cod, the Council is concerned about the potential problems that may arise including the increased potential for dumping and discarding. We have recommended that DFO identify control vessels, with observers onboard, to compare against landings of vessels without observers as real time mechanisms to control cod bycatch encountered during the fishery in this area. Observer coverage on these vessels should be increased, so when combined with 100% Dockside Monitoring, decisions can be quickly made to close fisheries by area or by fleet as necessary.

For yellowtail flounder, the Council recognized that the improvement in the health of this stock can certainly be credited partly to the measures implemented by industry over the past few years and encourages continuation of these initiatives. While this stock is clearly showing signs of significant improvement, caution must still be exercised. The majority of the stock appears to be found quite close to the boundary line with the US and, as such, could be overfished if the necessary monitoring and surveillance is not in place. There was also concern that US scallop draggers report catching quantities of yellowtail, but similar reports do not appear from the Canadian fleet. This is something that needs to be investigated as any unreported dumping needs to be quantified.

As with the yellowtail flounder stock, the Council believes that improvements in the haddock stock can certainly be credited partly to the measures implemented by industry over the past few years and encourages continuation of these initiatives. The Council remains optimistic that with the improved status of the 1996 year class and the predicted 1998 year class, achieving the 40,000t spawning stock biomass threshold is possible in the near future.

Since 1996, the FRCC has adopted a rebuilding strategy for these stocks. Two of the criteria used in the past are still valid today:

- setting quotas below $F_{0.1}$,
- target an increase in biomass by 5 percent or more,

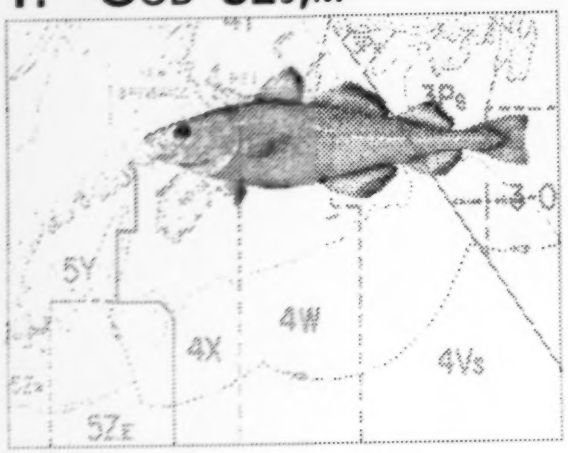
Your Council is pleased to have this opportunity to present you with this advice and we trust you will find this helpful in your deliberations.

Sincerely,

Fred Woodman
Chairman

STOCK-BY-STOCK RECOMMENDATIONS FOR 1999

1. COD 5ZJ,M



HISTORY OF FRCC RECOMMENDATIONS:

In November 1993, the Council concluded that, from a conservation perspective, the fishery for this stock should be closed. The Council noted, however, that a closure by Canada alone would not be sufficient to protect the stock without corresponding action by the United States. The Council urged that consultations continue with the United States with the objective of undertaking urgent and immediate management action to rebuild this stock.

In 1994, the fishery was closed to all sectors from January 1 to May 31 and for an additional month to June 30 for the offshore sector. The U.S. fishery was closed from January 1 to June 30. In November 1994, the Council recommended that bilateral consultations continue with the objective of undertaking management action appropriate to re-build this stock.

In May 1995, the FRCC recommended that there be no directed fishing for 5Zj,m cod in 1995 and that by-catch be limited to less than 1,000t. In November 1995, the Council again recommended that bilateral consultations continue and that the fishery remain closed until June 1996.

In May 1996 and May 1997 the Council adopted a strong rebuilding strategy for these stocks and set the following criteria: quotas below $F_{0.1}$, target an annual increase in biomass of 5 percent or more, accept a risk of decline in biomass (from the risk analysis) in the order of 20 percent or less; and establishing an appropriate ratio of cod to haddock to minimize dumping and discarding. The FRCC recommended Canadian

RECOMMENDATION #1

The FRCC recommends that:

1. **the total removals for the entire stock area (5Zjm) should be set at 2,400t (combined Canadian /US total removals);**
2. **DFO should continue to identify control vessels to compare against landings from vessels without observers as real time mechanisms to control cod bycatch encountered during the fishery in this area. Observer coverage on these vessels should be increased, so when combined with 100% DMP, decisions can be made quickly to close fisheries by area or by fleet as necessary;**
3. **at-sea enforcement be increased, particularly at times when dumping and discarding could be a problem;**
4. **appropriate discussions continue with the US with the objective of ensuring continued stock rebuilding by adopting consistent management and conservation measures on both sides of the Hague line and to ensure that the total removals are not in excess of the recommended total removals level;**
5. **the fishery commence June 1, 1999 to allow a better mix of cod and haddock to minimize bycatch problems in the fishery;**
6. **in anticipation of a widening gap in the haddock and cod total removals, and in light of their existing catch relationships, industry and DFO should investigate and undertake any possible measures to improve the ability of industry to avoid or minimize the catch of cod during a directed haddock fishery; and**
7. **particularly in light of the critical condition of this stock, the nature of any activity operating in the spawning area be investigated, with the objective of implementing appropriate measures to minimize all fishing and other activity in these areas during the peak spawning period.**

quotas for 5Zjm cod be set at 2,000t in 1996 and at 3,000t in 1997.

In 1998, the FRCC recommended that the Canadian quota for 5Zjm cod be decreased to 1,900t, and that the fishery commence June 1, 1998 to allow a better mix of cod and haddock to minimize by-catch problems in the fishery. The Council further recommended that DFO identify control vessels to compare against landings from vessels without observers as real time mechanisms to control cod by-catch encountered during the fishery in this area. The FRCC reiterated its recommendation that bilateral discussions with the U.S. continue with the objective of undertaking management action appropriate to re-build this stock..

1999 Consultations:

Consultations on 5Zjm cod were held in Yarmouth on May 11,1999. Stakeholders from both the mobile and fixed gear sectors acknowledged that the 1998 FRCC recommendations on Georges Bank stocks achieved desirable results and that rebuilding should continue. Generally fixed gear fishers expressed the gravity of the cod situation is not apparent in their fishery. The stakeholders comments mainly focussed on the lack of cod recruitment and explored reasons on why haddock and yellowtail recruitment are experiencing 20 year highs. They concluded that recent exploitation rates are below $F_{0.1}$ on all three stocks yet cod was the only stock not reacting positively with incoming recruits. Industry recommendations were for the status quo, or slightly higher levels, regarding quota levels. In a brief received later, slightly lower levels were recommended on this stock. Industry reported that an improved management approach designed in Conservation Harvest Plans in conjunction with DFO will achieve to control at-sea activity of the fleets.

Analysis:

The 1999 DFO Stock Status Report indicates that:

- Combined Canada and US catches in 1998 were 2,700t.
- Growth and higher survival of the 1992 and the 1995 year-classes were the primary source which increased adult biomass from 8,000t in 1995 to about 19,000t in 1999.
- Recruitment has been below average since the 1990 year-class, and the 1997-98 year-classes are the lowest observed. Recruitment has been observed to be low when adult biomass is less than 25,000t.
- The likelihood of a 20% increase in biomass, as observed in 1998, is low due to this recent poor recruitment. It is unlikely that an adult biomass of 25,000t can be achieved in the near future.
- Exploitation rate on ages 4+ declined from 65% in 1993 to near the $F_{0.1}$ level in 1995 and remained near $F_{0.1}$ in 1996-98.
- At the projected 1999 $F_{0.1}$ yield of 3,700t there is over a 50% probability that the biomass will decrease in 2000. To achieve a 50% probability of modest (10%) biomass increase would require a 1999 quota of about half the 1998 catch.

Council's views on Stock Status:

Overall Stock Indicator:	**some signs of recovery; but poor recruitment is cause for concern**
	Compared to average
Spawning Biomass:	**increasing but below the 25,000t threshold**
Total Biomass:	**below long term average**
Recruitment:	**recovery since 1994 due to moderate year classes in 1992 and 1995; 1997 and 1998 year classes lowest observed**
Growth and Condition:	**weights-at-age remain low overall**
Age Structure:	**landings dominated by 1995 year class**
Distribution:	**consistent over time**
Recent Exploitation Level:	**near $F_{0.1}$ since 1995**

This is a transboundary stock and consistent measures need to be taken by both Canada and the US in order to manage the stock on a rational basis. Furthermore, recent changes in the US management system, whereby they now set a "US Target TAC" necessitates that the Council change its previous method of recommending only a Canadian quota, and adopt recommendations for an overall TAC. The Council notes that catches by US vessels continue to increase each year.

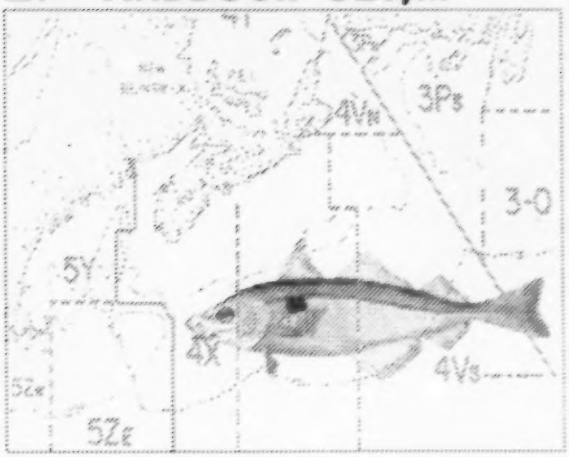
During consultations, the Council was made aware that the scallop fishery may include activity in known cod spawning areas during the peak spawning period. The Council had endorsed the principle of protecting spawning concentrations and consistently recommends that fishing in known spawning areas be minimized during the peak spawning period.

The Council recognizes that, in this area, management of the mixed fishery for cod and haddock poses special challenges for managers and industry. As haddock on Georges Bank recovers and the gaps in biomass between these two species has widened, the industry has had to adjust. Current projections for these two stocks may require that further such efforts be made in coming seasons.

The Council continues to be very concerned with the lack of recruitment experienced in this stock. However the decline in weight-at-age is reversed in 1998. This stock is at approximately 19,000t of spawning stock biomass in 1999 compared to a low of 8,000t in 1995. This stock experienced an increase in biomass of 23% from 1998 to 1999, due solely to growth. However, the subsequent recruitment is very weak, which will reverse this trend. The interim goal for this fishery is to get the spawning stock biomass (ages 3+) above the 25,000t threshold.

A total removal level of 2,400t for the entire stock area (5Zjm) should allow for growth in this stock but only for the short term.

2. HADDOCK 5ZJ,M



HISTORY OF FRCC RECOMMENDATIONS:

In August 1993 and in November 1993, the Council recommended that, from a conservation perspective, the haddock fishery on Georges Bank should be closed. The Council urged the continuation of the consultations with the United States with the objective of undertaking urgent and immediate management action to rebuild this stock. The fishery was closed to all sectors from January 1 to May 31 in 1994 and for an additional month, to June 30, for the offshore. The management measures concentrated on avoiding the capture of the 1992 year-class estimated to be 45 cm throughout most of the year.

In 1994, the Council recommended that bilateral consultations continue with the objective of undertaking management action appropriate to rebuild this stock. In the meantime, the Council recommended that the fishery be closed until June 1995, prior to which time the Council would provide a definite recommendation with respect to the 1995 TAC. In May 1995, the Council recommended that the 1995 TAC for 5Zjm haddock be set at 2,500t.

In May 1996, the Council adopted a rebuilding strategy for this stock based on the following criteria: setting quotas below $F_{0.1}$, target an increase in biomass by 5 percent or more, risk of decline in biomass (from the risk analysis) in the order of 20 percent or less; and establishing an appropriate ratio of cod to haddock to minimize dumping and discarding. In 1996 the FRCC recommended that the Canadian quota for 5Zjm haddock be set at 4,500t and in 1997 the FRCC recommended the Canadian quota be reduced to 3,200t.

In 1998, the FRCC recommended that the Canadian quota for this stock be increased to 3,900t, and that the fishery commence June 1, 1998 to allow a better mix of cod and haddock to minimize by-catch problems in the fishery. The Council also reiterated its recommendation that bilateral discussions with the U.S. continue.

RECOMMENDATION #2.

The FRCC recommends that:

1. **the total removals for the entire stock area (5Zjm) should be set at 4000t (Combined Canadian/ US total removals);**
2. **the fishery commence June 1, 1998 to allow a better mix of cod and haddock to minimize bycatch problems in the fishery, and surveillance and monitoring be stepped up for at least the first few weeks of the fishery;**
3. **appropriate discussions continue with the USA with the objective of ensuring continued stock rebuilding by adopting consistent management and conservation measures on both sides of the Hague line and to ensure that the total removals are not in excess of the overall TAC;**
4. **DFO should continue to identify control vessels to compare against landings from vessels without observers as real time mechanisms to control cod bycatch encountered during the fishery in this area. Observer coverage on these vessels should be increased, so when combined with 100% DMP, decisions can be made quickly to close fisheries by area or by fleet as necessary; and**
5. **efforts be made to protect the 1998 year class, e.g., hook size, mesh size, etc.**

1999 Consultations:

Consultations on 5Z haddock were held in Yarmouth on May 11, 1999. Stakeholders expressed satisfaction with the initial rebuilding that took place over the past year but were unanimous in recommending that caution still prevail. Industry recommendations for TACs were all below $F_{0.1}$. There was also general agreement that we should aim for a 40,000t threshold in the spawning stock biomass (ages 3+) to improve the chances of good recruitment. With the apparently strong 40 million 1998 year class (strongest since 1978) stakeholders were of the opinion that the 40,000t threshold in spawning stock biomass (ages 3+) may be reached by 2001-2002. Industry participants were all of the opinion that this fishery should open on June 1 as this was a time when haddock could be fished without a lot of mixing with cod.

Analysis:

The 1999 DFO Stock Status Report indicates that:

- Combined Canada and US catches in 1998 were about 3,700t.
- Exploitation below $F_{0.1}$ since 1995.
- The 1992 and 1996 year-classes were moderate while the 1997 year-class was weaker. Preliminary indications suggest that the 1998 year-class will be strong.
- Biomass has increased since 1993 to near recent average but remains only about 1/3 of historical average.
- Growth of biomass for ages 3-8 is not expected to be strong during 1999 and the biomass will remain below the 40,000t threshold.

This is a transboundary stock and consistent measures need to be taken by both Canada and the US in order to manage the stock on a rational basis. Furthermore, recent changes in the US management system, whereby they now set a "US Target TAC" necessitates that the Council change its previous method of recommending only a Canadian quota, and adopt recommendations for an overall TAC.

The Council recognizes the improvements made in this stock as a result of the conservation measures adopted by industry in recent years and encourages a continuation of these initiatives. The Council is optimistic that with the improved status of the 1996 year class and predicted large 1998 year class, achieving the 40,000t spawning stock biomass threshold is possible in the very near future. Above this level, the FRCC and the industry in this area believes that there is an improved chance of good recruitment to the fishery. The increase in biomass in ages 3-8 biomass in 1999 was about 24%.

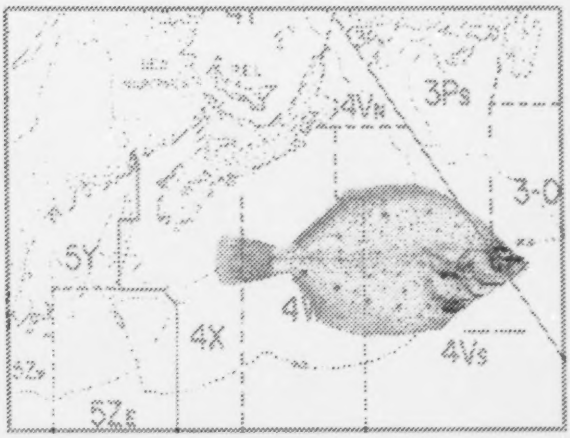
A TAC for the entire stock area (5Zjm)of 4,000t is about 63% of the $F_{0.1}$ level of 6300t. It is suspected that this level of catch will keep exploitation low and will increase the spawning biomass by about 10%.

Council's views on Stock Status:

Overall Stock Indicator	**some signs of recovery**
	Compared to average
Spawning Biomass:	**increasing but below 40,000t threshold**
Total Biomass:	**doubled since 1993 but 1/3 of levels of 1930s to 1950s**
Recruitment:	**sporadic; 1992, 1993 and 1996 year classes moderate; preliminary information on the 1998 year class suggests it is strong**
Growth and Condition:	**average**
Age Structure:	**expanding**
Distribution:	**more than 90% of biomass on Canadian side, limited on US side**

Recent Exploitation Level: below $F_{0.1}$

3. YELLOWTAIL FLOUNDER 5ZJMHN



HISTORY OF FRCC RECOMMENDATIONS:

The directed fishery for yellowtail flounder began only recently, with 8 to 10 boats participating in a fishery. It expanded rapidly in 1994, with about 40 vessels pursuing the fishery. In November 1995, the Council recommended that bilateral consultations continue with the US with the objective of undertaking management action appropriate to rebuild this stock. In the meantime, it was recommended that the fishery remain closed until June 1996, prior to which time the Council would provide a definitive recommendation with respect to the 1996 TAC.

In May 1996, the Council adopted a rebuilding strategy for this stock which was based on the following: setting quotas below $F_{0.1}$ target an increase in biomass by 5 percent or more, and risk of decline in biomass (from the risk analysis) in the order of 20 percent or less. In 1996 the FRCC recommended that the Canadian quota for 5Zjmhn yellowtail flounder be set at 415t and in 1997 the FRCC recommended that the Canadian quota be increased to 800t.

In 1998, the FRCC recommended that the Canadian quota for this stock be set at 1,200t; and that bilateral discussions with the US continue. The FRCC also recommended that DFO implement an age reading capability for yellowtail flounder on Georges Bank.

1999 CONSULTATIONS:

Consultations on 5Zjmhn yellowtail flounder were held in Yarmouth on May 11, 1999. Stakeholders expressed satisfaction at the rebuilding which has taken place, but asked the FRCC to remain cautious in its recommendations. Participants noted that the US catches of yellowtail flounder in 1998 had increased substantially from the previous year.The industry felt this stock was quite sedentary in nature and acknowledged its distribution was largely adjacent to the Hague line. Industry was pleased to see that the 1997 year class was the largest since 1980 and felt this stock was rebuilding nicely.There was a recommendation from participants that checks be made by DFO on the bycatch of yellowtail flounder by the Georges Bank Canadian scallop fleet due to the fact that US scallop fishers reported bycatches.

RECOMMENDATION #3:

The FRCC recommends that:

1. **the total removals for the entire stock area (5Zjmhn) should be set at 4,000t (Combined Canadian/US total removals);**
2. **the Department of Fisheries and Oceans continue to implement an age reading capability for yellowtail flounder on Georges Bank;**
3. **efforts be made to develop appropriate measures to protect the incoming 1997 year class, e.g., mesh size, increase or configuration, etc.;**
4. **any discarding of yellowtail flounder in the scallop fishery be monitored toward total annual estimates of the extent of this by-catch; and**
5. **appropriate discussions continue with the US with the objective of ensuring continued stock rebuilding by adopting consistent management and conservation measures on both sides of the Hague line and to ensure that the total removals are not in excess of the overall TAC.**

ANALYSIS:

The 1999 DFO Stock Status Report for this species indicates that:

- Combined Canada/US catches have been increasing since 1995, and in 1998 were 3,111t.
- Population biomass has increased since 1995, and is not about ¾ of the biomass associated with maximum sustainable yield.
- Recent recruitment has improved relative to the 1980s, and the 1997 year-class appears to be strongest since 1980.
- Exploitation rates have been less than the $F_{0.1}$ target of 20% during the past three years.
- There is a high probability that population biomass levels will continue to increase with fishery removals in 2000 equal to those of 1998, but the amount of the increase is uncertain.

This is a transboundary stock, which is concentrated very close to the international boundary. Consistent measures need to be taken by both Canada and the US in order to manage the stock on a rational basis. Furthermore, recent changes in the US management system, whereby they now set a "US Target TAC " necessitates that the Council change its previous method of recommending only a Canadian quota, and adopt recommendations for an overall TAC.

The Council recognizes the improvement made in this stock as a result of a cautious approach taken by industry in this fishery in recent years and encourages a continuation of these initiatives. Industry also raised the issue of proper aging of this stock and noted that it would reduce the uncertainties in the calculations of the size of the population. Action should be taken to address this uncertainty in the Canadian fishery so that more precise population estimates can be made.

The biomass of yellowtail flounder is below the long term average but has steadily shown signs of improvement. Moderate-to-strong year classes in the 1990s and a strong 1997 year class is very positive for this stock. The age structure of the population is expanding, as evidenced by the size composition in the landings over the past 4 years. Exploitation levels were well below $F_{0.1}$ in 1995, 1996, 1997 and 1998.

A TAC for the entire stock area (5Zjmhn) of 4,000t is recommended. The Council believes that this level will permit stock rebuilding; will keep exploitation within 91% of the VPA model ($F_{0.1}$) of 4,383t. As well, this TAC level may result in a significant increase in the SSB that may be as high as 50%.

The Council notes that the above figures are calculated based on the method which provides the most conservative levels for $F_{0.1}$. The scientists applied another method in the DFO SSR that provided for a higher estimate of $F_{0.1}$ (or its equivalent). The Council is cautious, and believes that the alternate method may be overly optimistic.

COUNCIL'S VIEWS ON STOCK STATUS:

Overall Stock Indicator:	**rebuilding**
	Compared to average
Spawning Biomass:	**rebuilding**
Total Biomass:	**rebuilding**
Recruitment:	**moderate/strong year classes in 1990's; the 1997 year class estimated to be strong**
Growth and Condition:	**slight decline in weights-at-age in 1998 for older ages**
Age Structure:	**expanding**
Distribution:	**consistent over time**
Recent Exploitation Level:	**below $F_{0.1}$**

APPENDIX 1:

Letter to Stakeholders and Questions for Discussion at Consultation

APPENDIX 1: LETTER TO STAKEHOLDERS AND QUESTIONS FOR DISCUSSION

April 26, 1999

Dear Stakeholder:

The Fisheries Resource Conservation Council (FRCC) will hold its annual public consultation on May 11, 1999 at 9:00 A.M. at the RODD GRAND HOTEL in Yarmouth, Nova Scotia to gather information on Georges Bank groundfish stocks. Your views will assist us in providing advice to the Minister of Fisheries and Oceans regarding conservation requirements for Georges Bank haddock, cod and yellowtail flounder.

At the consultation, the Department of Fisheries and Oceans (DFO) will present new information on the three stocks from this year's stock status reports. As always, stakeholders are invited to make a presentation at the meeting or provide us with a written brief: Fisheries Resource Conservation Council, P.O. Box 2001, Station D Ottawa, ON, K1P 5W3, (613) 998-0433 phone, (613) 998-1146 fax.

The FRCC has produced the following questions to help focus the discussion:

1. The ITQ mobile fleet experienced yellowtail catch rates in the later months (Nov, Dec) in 1998 which were lower than the previous 2 years (same months). Do you think this is indicative of stock abundance, stock distribution over the area, or some other cause?
2. We have observed a strong recruitment signal for both yellowtail and haddock on Georges Bank, however cod recruitment is negligible. What could be the possible causes of this situation?
3. Catch rates from commercial fisheries on Georges Bank are calculated and reviewed by Science. However, these catch rate series are not currently used as indices of abundance in the stock assessments. Do you think that these data should be used explicitly?
4. Based on your knowledge of Georges Bank, are we at a comfortable level of biomass? What rebuilding threshold should we be seeking to reach?
5. How can we best enhance rebuilding of the stocks, e.g., fish at F0.1 or less, ensuring more spawners and larger fish are left to produce adequate recruitment?
6. Were last year's FRCC recommendations appropriate to allow a clean fishery without dumping and discards?
7. Should there be additional conservation measures in this fishery and what should they be?

The FRCC is committed to the continued rebuilding of Georges Bank groundfish stocks. Your views are important and we hope you will participate.

Fred Woodman
Chairman

APPENDIX 2:

BRIEFS RECEIVED AT THE GEORGES BANK CONSULTATION

APPENDIX 2: BRIEFS RECEIVED AT THE GEORGES BANK CONSULTATION

A. Briefs Received by Mail

FRCC. 99.5Z.-1	Groundfish Enterprise Allocation Council, Gloucester, Ont.
FRCC. 99.5Z.-2	South West Fishermen's Quota Group Association, Ronnie A. Newell

B. May, 1999 - Yarmouth, N. S

FRCC. 99.5Z.-3	Scotia Fundy Mobile Gear Fishermen's Assoc., Yarmouth, N.S.
FRCC. 99.5Z.-4	Inshore Fisheries Ltd., Yarmouth, N.S., Claude d'Entremont
FRCC. 99.5Z.-5	Scotia Fundy Inshore Fishermens Association, Barrington, N.S., E.L. Walters
FRCC. 99.5Z.-6	The Gulf of Maine Advisory Committee, P.E. Partington

APPENDIX 3:
FRCC MANDATE AND MEMBERSHIP

APPENDIX 3: FRCC MANDATE AND MEMBERSHIP

1. INTRODUCTION

The Government of Canada is committed to a more comprehensive approach to the conservation and management of our fisheries resource. This approach demands a better understanding of complex fisheries ecosystems - the interaction of fish with other species, predator-prey relationships, and also changes in the marine environment like ocean currents, water temperatures and salinity.

The Government of Canada is also committed to a more effective role in decision-making for those with practical experience and knowledge in the fishery.

The Minister of Fisheries and Oceans has established the Fisheries Resource Conservation Council (FRCC) as a partnership between government, the scientific community and the direct stakeholders in the fishery. Its mission is to contribute to the management of the Atlantic fisheries on a 'sustainable' basis by ensuring that stock assessments are conducted in a multi-disciplined and integrated fashion and that appropriate methodologies and approaches are employed; by reviewing these assessments together with other relevant information and recommending to the Minister total allowable catches (TACs) and other conservation measures, including some idea of the level of risk and uncertainty associated with these recommendations; and by advising on the appropriate priorities for science.

2. DEFINITION OF CONSERVATION

Fisheries conservation is that aspect of the management of the fisheries resource which ensures that its use is sustainable and which safeguards its ecological processes and genetic diversity for the maintenance of the resource. Fisheries conservation ensures that the fullest sustainable advantage is derived from the resource and that the resource base is maintained.

3. COUNCIL OBJECTIVES

3.1 To help the government achieve its conservation, economic and social objectives for the fishery.The conservation objectives include, but are not restricted to:

3.1.1 rebuilding stocks to their 'optimum' levels and thereafter maintaining them at or near these levels, subject to natural fluctuations, and with 'sufficient' spawning biomass to allow a continuing strong production of young fish; and.

3.1.2 managing the pattern of fishing over the sizes and ages present in fish stocks and catching fish of optimal size.

3.2 To develop a more profound understanding of fish-producing ecosystems including the inter-relationships between species and the effects of changes in the marine environment on stocks.

3.3 To review scientific research, resource assessments and conservation proposals, including, where appropriate, through a process of public hearings.

3.4 To ensure that the operational and economic realities of the fishery, in addition to scientific stock assessments, are taken into account in recommending measures to achieve the conservation objectives.

3.5 To better integrate scientific expertise with the knowledge and experience of all sectors of the industry and thus develop a strong working partnership.

3.6 To provide a mechanism for public and industry advice and review of stock assessment information.

3.7 To make public recommendations to the Minister.

4. Mandate and Scope

4.1 The Fisheries Resource Conservation Council will address these objectives by bringing together industry, DFO science and fisheries management, and external scientific and economic expertise in one body.

4.2 The Council will:

4.2.1 advise the Minister on research and assessment priorities;

4.2.2 review DFO data and advise on methodologies;

4.2.3 consider conservation measures that may be required to protect fish stocks;

4.2.4 review stock assessment information and conservation proposals, including through public hearings, where appropriate; and,

4.2.5 make written public recommendations to the Minister on TACs and other conservation measures.

4.3 The Council may recommend any measures considered necessary and appropriate for conservation purposes such as TACs, closure of areas to fishing during specific periods, approaches to avoid catching sub-optimal sized fish or unwanted species, and restrictions on the characteristics or use of fishing gears.

4.4 The Council's scope includes Canadian fish stocks of the Atlantic and Eastern Arctic Oceans. In the first instance, the Council will address groundfish, and then subsequently take on responsibility for pelagic and shellfish species.

4.5 The Council is also responsible for advising the Minister on Canada's position with respect to straddling and transboundary stocks under the jurisdiction of international bodies such as the Northwest Atlantic Fisheries Organization (NAFO).

5. Size, Structure and Make-Up

5.1 The Council will consist of not more than 14 members with an appropriate balance between 'science' and 'industry'.

5.2 Members are chosen on merit and standing in the community, and not as representatives of organizations, areas or interests.

5.3 'Science' members, are drawn from government departments, universities or international posts, and are of an appropriate mix of disciplines, including fisheries management and economics.

5.4 'Industry' members are knowledgeable of fishing and the fishing industry and understand the operational and economic impacts of conservation decisions.

5.5 All members of the Council are appointed by the Minister.

5.6 All members, including the Chairperson, are appointed for a three year term; terms can be renewed.

5.7 Members appointed from DFO serve 'ex officio'.

5.8 Members have to disclose any interest in the Atlantic or Eastern Arctic fishery and take appropriate measures so as to avoid potential or real conflict of interest situations during the term of appointment.

5.9 The four Atlantic Provinces, Quebec and the Northwest Territories may each nominate one delegate to the Council. These delegates have access to the Council's information, and may participate fully in meetings, but will not be asked to officially endorse the formal recommendations to the Minister.

5.10 The Council is supported by a small Secretariat, to be located in Ottawa. The Secretariat will:

5.10.1 provide administrative support for the functioning of the Council;

5.10.2 provide a technical science and fisheries management support;

5.10.3 organize Council meetings;

5.10.4 record decisions of the Council;

5.10.5 undertake a professional communications function for the Council, providing a central point for communications to and from the Council; and

5.10.6 undertake such other matters as from time to time might be appropriate.

5.11 The Chairman may appoint an Executive Committee, consisting of the Chairman, Vice-Chairman, and three other Members.

5.12 In addition, the Chairman may, from time to time, strike an 'ad hoc' committee to deal with a specific issue.

6. ACTIVITIES:

6.1 Reviews appropriate DFO science research programs and recommends priorities, objectives and resource requirements.

6.2 Considers scientific information - including biology, and physical and chemical oceanography, taking into account fisheries management, fishing practices, economics and enforcement information.

6.3 Conducts public hearings wherein scientific information is presented and/or proposed conservation measures/options are reviewed and discussed.

6.4 Recommends TACs and other conservation measures.

6.5 Prepares a comprehensive, long-term plan and a work plan for the Council which are reviewed annually at a workshop with international scientists and appropriate industry representatives.

6.6 Ensures an open and effective exchange of information with the fishing industry and contributes to a better public understanding of the conservation and management of Canada's fisheries resource.

FRCC MEMBERSHIP:

MEMBERS:

Fred Woodman, Chairman
Jean-Claude Brêthes, Vice-Chair
Osborne Burke
Bruce Chapman
Ernest Després
Jean Guy d'Entremont
Gabe Gregory
Frank Hennessey
Dan Lane
Edward McAlduff
John Pope
George Rose
Louis Schofield
Trevor Taylor
Maureen Yeadon

PROVINCIAL DELEGATES:

Stephen Atkinson, Northwest Territories
Mario Gaudet, New Brunswick
David Gillis, Prince Edward Island
Dario Lemelin, Québec
Tom Dooley, Newfoundland and Labrador
Clarrie MacKinnon, Nova Scotia

EX OFFICIO:

Guy Beaupré
William Doubleday
Barry Rashotte

SECRETARIAT:

Chris J. Allen, A/Executive Director
Andrée-Anne Guibord
Tracey Sheehan
Debra Côté
Denis Rivard
Lisa Tenace
Marny Brown

GEORGES BANK ASSESSMENT TEAM:

Jean-Guy d'Entremont, Chair
Chris J. Allen
Daniel Lane
Clarrie MacKinnon
Fred Woodman
Maureen Yeadon